THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

March 2001

What Is an A-6 Doing Way Out Here?

Our Turn in the Spotlight

Birds Always Turn Away, Right?

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The Naval Safety Center's Aviation Magazine
March 2001 Volume 46 No. 03
On the Cover Photo-composite illustration by Allan Amen using cockpit photo by Ted Carlson and other archived images.
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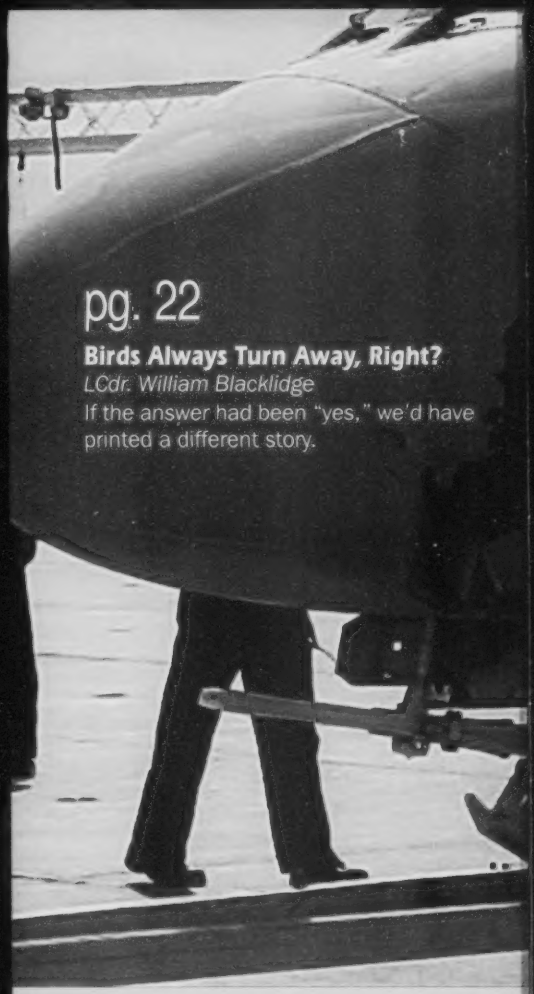

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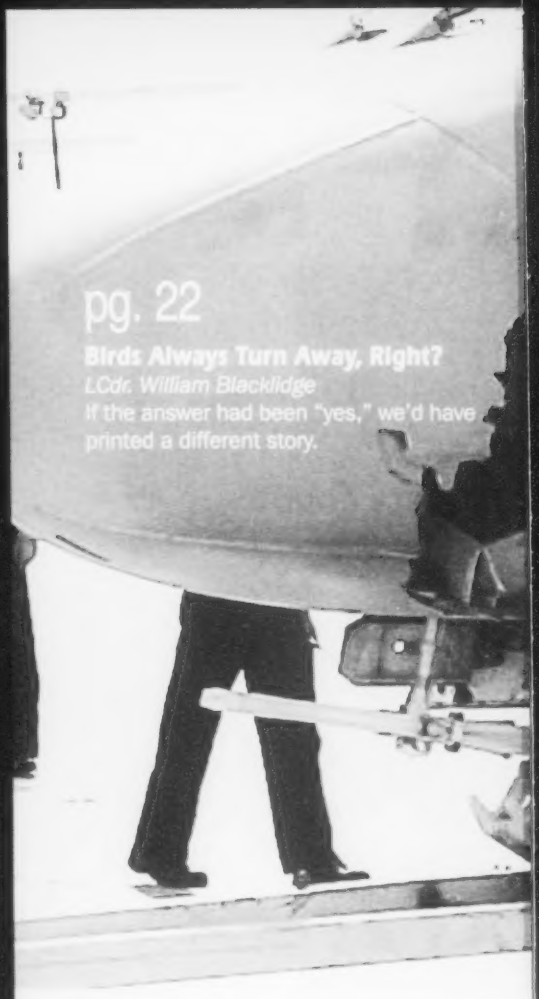

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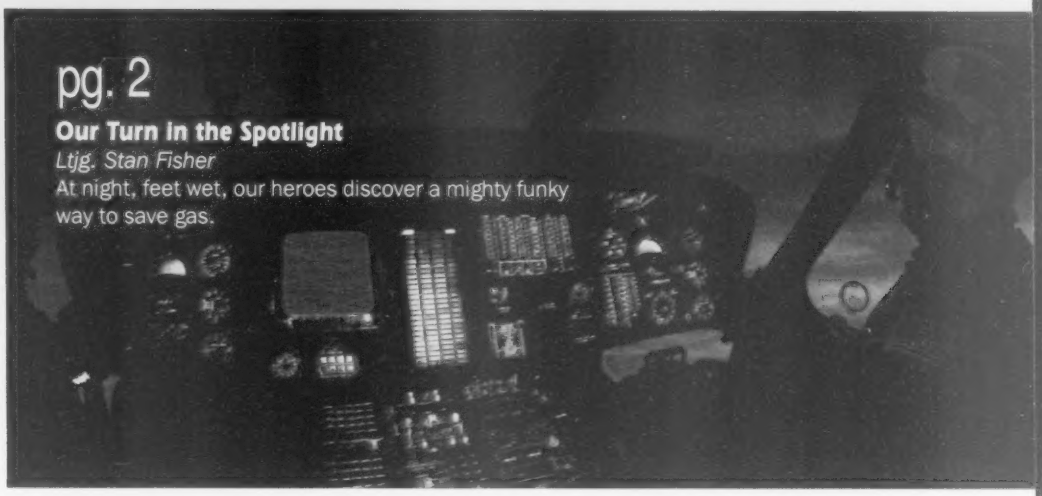

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Our Turn in the Spotlight

by Ltjg. Stan Fisher

It was a standard surface surveillance flight (SSC) during our composite-task-unit exercise. Cutlass 476, our detachment's SH-60B, was to launch, radar floodlight the area, and visually identify all contacts with our forward-looking infrared system (FLIR). The crew aboard this day-into-night flight was composed of the most junior sensor operator (SO), most junior HAC, and myself, the most junior H2P on the det.

After being airborne for a half-hour, we painted a few contacts about 70 miles north. Back in combat, the tactical action officer (TAO) asked us to go out and take a look. The contacts were suspected to be part of the opposing force in the exercise; our last intel brief had them located somewhere far to the north.

Our crew, ever wanting to be the heroes, rogered up to the call and bustered outbound. We discussed slowing down to conserve some fuel, but it was only going to be a 3-hour bag and we launched with 3+45 to splash.

After finding the contact, we dropped out of range for voice-data link communications with the ship for about 15 minutes in order to get lower and have a closer look. We got visual identification and confirmed that it was an opposing-force ship. The situation had just become very interesting. Was the TAO going to pass orders to shoot? Would we get the first confirmed kill of the exercise? We weren't thinking about our burn rate and distance from the ship. Unfortunately, she was speeding away from us.

We had an hour to go until flight quarters, but we had strayed 100 miles from the ship. Instructions were not to fire, just localize. We picked up some simulated hostile emitters that were even farther to the north and checked in with the TAO as to whether or not they wanted us to investigate. He rogered up, and again we took off like a bat out of hell, thinking it might be our only chance. We coordinated a geographic point where we would reestablish comms with the ship, but we misjudged our ingress and egress time. After about 30 minutes of searching, we decided it was time to call it quits. We were still detecting hits from the opposing-force radar on our electronic support measures (ESM) system, but the contact must have been quite a ways off.

By the time we regained comms with the ship, we'd spent nearly 45 minutes with no radio communication (our SOP says that 30 minutes should be the maximum). We had now closed to 90 miles from the ship, but flight quarters was to be set shortly. As an aircrew, we had neglected to go through the usual checks and balances of time and fuel. Had we been paying attention to the timing of flight quarters, we would have questioned the order to investigate the second contact and more than likely cancelled it. The real reason for our now serious situation was a simple case of poor situational awareness. We weren't at war. The crew had been sucked into the simulated tactical picture and neglected the big picture.

As we headed home, minimum fuel reared its nasty head. We were staring at an impending low-fuel light if we continued in the same

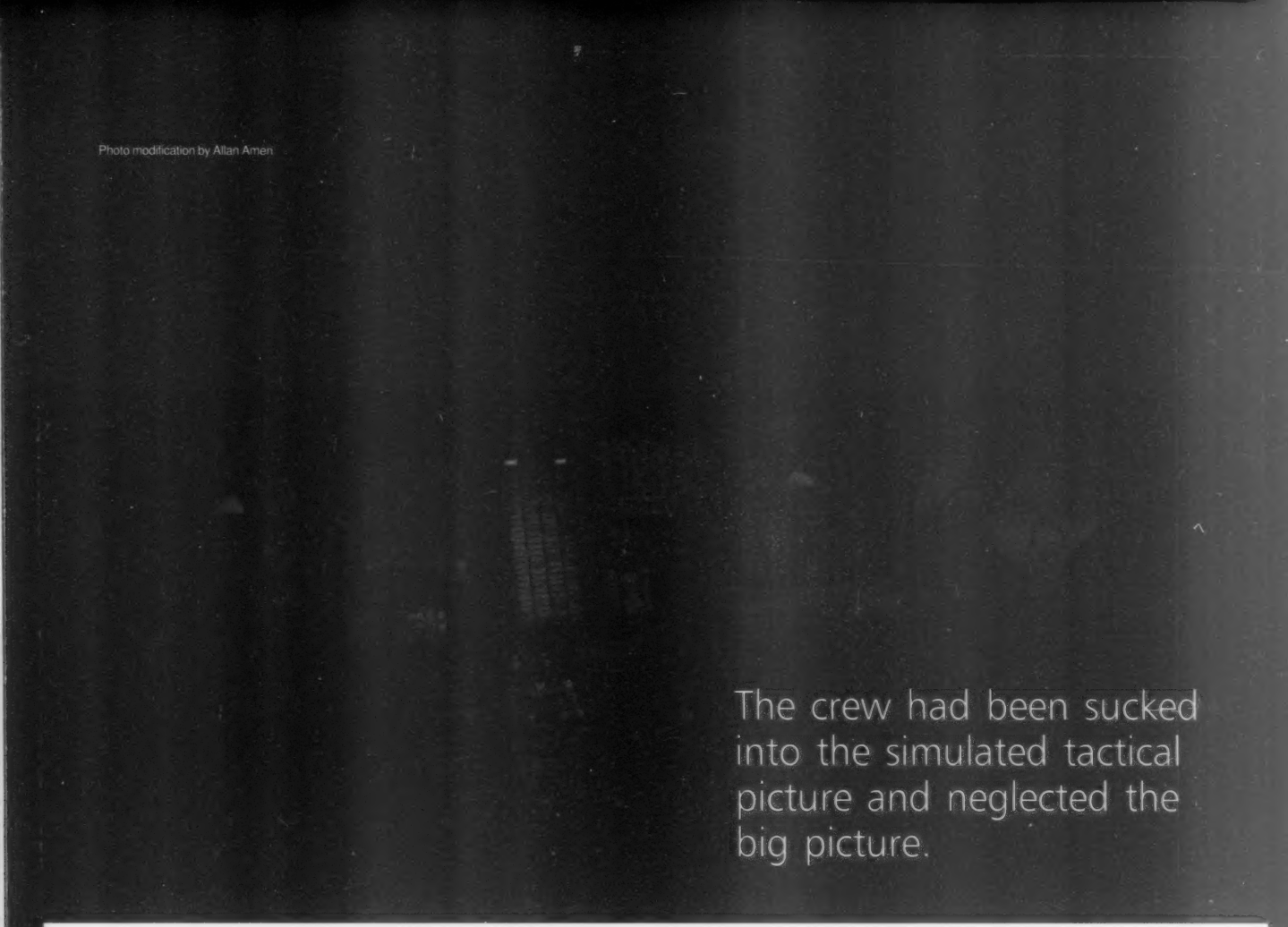

Photo modification by Allan Amen

The crew had been sucked into the simulated tactical picture and neglected the big picture.

configuration. After consulting NATOPS, we configured the aircraft in a max-range profile, which included jettisoning all sonobuoys, gaining altitude, and shutting down one engine to conserve fuel. Upon reaching 6,000 feet (recommended altitude per NATOPS in this situation), we shut down the No. 2 engine. I watched the torque and airspeed, meticulously trying to match the numbers in NATOPS. I also was staring at a big, red, No. 2 engine-out light, and I was not in the simulator.

We gauged our burn rate and closure rate to the ship, and things still did not look good. The ship understood the severity of the situation, changed course, and proceeded to close our position at flank speed. Talk about being in the spotlight!

There were numerous contacts between the ship and us, but some lacked a deck and the others weren't clear. Land was another 100 miles away. It was the ship or the water. Fortunately, we began to "make" some fuel and sighted the ship at about 10 miles with 600 pounds left. On final, we started up the auxiliary power unit and then the No. 2 engine. Oil pressure was a little high on start up, but eventually settled after we brought the power control lever to idle and then ran it back up.

I landed the aircraft with all systems intact, a lot lighter than on takeoff, an empty sonobuoy launcher, and a low-fuel light on No. 2. We touched down with 520 pounds of fuel; SOP stipulates no less than 600 pounds on deck. We had only missed it by 80 pounds, but we would have been very wet had we not singled up to one engine when we did.

Lessons learned? Always calculate your burn rate, your distance from home plate, and your time left on station. Most of all, know when to say when.

Ltjg. Fisher flies with HSL-46.

From Combat to Casale

by Ltjg. Mark Keller

A month into my first deployment, we had been flying strikes over Kosovo for two weeks. We had been frustrated by bad weather, but this night promised to be different. The skies were clear, and we had a juicy target. I was more than ready to enjoy my first taste of combat.

After a nice, solid cat stroke, our F-14 was off into the night. I called airborne, and my pilot immediately told me he had a spoiler light that wouldn't reset. The F-14 uses differential horizontal stabilizers for primary roll control, so we were in no immediate danger, but this was not a condition to take into combat. I told departure that we had a problem and would take high holding to troubleshoot. I quickly found a couple of popped circuit breakers and reset them. They popped again, so I reset them a second time. Maybe I hadn't pushed them in all the way. They popped a third time, and I knew we were done for the night.

We had more than enough gas to hold overhead for our scheduled recovery, but marshal had a different plan for us. The controller had been pestering us for details from the beginning, despite my repeated instructions to "stand by" since we were going through the PCL for options. We called for a rep, and he said they were going to bring us in on this recovery. Marshal then started giving vectors. We checked controllability, and the aircraft alarmingly rolled off to the right as soon as the flaps started down. My pilot told me that he had to put in full left stick to maintain level flight. I broke out my flashlight and looked at the spoilers. Two of the right spoilers were stuck partly up. The aircraft was still controllable with the flaps up, but there's nothing like a night, no-flap approach at the boat, especially with a heavy load-out.

I wasn't too worried, because we'd already had an uneventful, no-flap approach a few weeks earlier. We called for a "no-flapper" and dumped 15,000 pounds of gas (minimizing our gross weight, because of wind-over-the-deck requirements).

We continued to dump fuel while we descended to 1,200 feet, while chasing our continually changing final bearing all over the Mediterranean. The ship was having trouble finding wind for our 150-knot approach. At seven miles behind the boat, I remembered that I had not set up my data link for the ACLS. Putting my copilot scan on hold, I unclipped my Grimes light so I could see the unlit control box. It seemed like only a few seconds before my pilot screamed, "Altitude!" as he selected full power and got back on parameters. We had been at 700 feet, descending at 200 feet per minute! He'd had his head down, trying to sort out a fuel imbalance that he hadn't mentioned. This hop was not fun, and I was glad we were about to get aboard.

However, we got waved off at a mile for insufficient wind over the deck. We had called 4.5 on the ball, which was 200 pounds above bingo, but 1,200 pounds above tank state. We were instructed to climb for a quick drink from an S-3. We drilled straight ahead for about a minute, looking for the tanker on our radar before I caved in and asked for a steer. It turned out that the tanker was several miles behind us. Marshal asked our state, which was 4.3, and our tower rep came up and told us to divert for an arrested landing at our divert field, Casale Airport in Italy. He also reminded us to prepare for a shore-based landing, since we hadn't landed on anything but the boat for a month. We started a bingo profile to the north, and we were cleared to switch with a "sweet lock" and "sweet comms."

What do you think neither one of us had handy on our kneeboard? You got it—divert information. I broke out my new hand-held GPS and fumbled around for what seemed like an eternity, before I could figure out how to get the TACAN channel

Photo modification by Allan Amen

and approach frequency we needed. Meanwhile, my pilot got the TACAN channel from the S-3 that we were supposed to tank with, while he asked me for the bingo altitude for an 80-mile divert. We eventually got to 24,000 feet and pointed at the TACAN. We established comms (using the freq that was on my GPS) with an Italian controller who undoubtedly was wondering why someone squawking 7700 was coming at him without checking in.

The next problem was figuring out if we could make the arrested landing that our rep had mandated. Neither one of us was sure if the field had arresting gear, so we asked the Italian approach controller. His English was every bit as good as my Italian. By the time we had given up on making him understand our question, we were one mile from the TACAN and wondering where the field was. My pilot finally figured out that the arresting gear was for overruns only, so we decided to skip the arrested landing and concentrate on finding the runway. It turned out that the threshold was displaced from the TACAN four miles to the north.

The controller said, "Four miles," and we spotted two parallel rows of white lights embedded in a sea of other white lights on our nose. We convinced each other that must be the runway and managed to make a delightfully uneventful min-fuel landing.

When our maintenance troops got to the beach the next day, they put power on our jet, reset the popped circuit breakers, and immediately had a major electrical fire. Twenty circuit breakers popped, producing lots of smoke. We ended up enjoying the hospitality of the Italian government for a week, while our brethren on the ship were engulfed in battle over Kosovo.

Three lessons. Never let a controller pressure you into a bad situation. Never hold in a popped circuit breaker or reset it more than once. And never go flying without all your divert information ready to pull out at a moment's notice.

Ltjg. Keller flies with VF-14.

Cockpit Photo by Ted Carlson
Photo-composite by Allan Amen

What is an A-6 Doing Way Out Here?

by Lt. Brian Nichols

Fly-off day at last. We were preparing for a fly-off from an East Coast cruiser at the end of a work-up. I was on my first underway period as an aircraft commander in the SH-60B, about to do my first fly-off with nobody in the other seat to bail me out when things went wrong. The weather seemed typical for the Norfolk area: a fairly low cloud deck and limited visibility. After spending a few years in Norfolk during my SH-2F days, I had gotten used to the weather and was not intimidated by it. The weather was above minimums for a fly-off, and I was confident that it would not be a problem.

During our preflight brief in combat, I learned the ship was 68 miles southeast of NAS Oceana. OK, I thought, not a big deal. Since there are plenty of TACAN stations to pick up along the coast, I would launch and head northwest while working on getting a TACAN lock on Elizabeth City or something south of Oceana. I figured that

because of our altitude and distance, Oceana's TACAN would be out of range. Once we got a TACAN fix, we would orient ourselves, continue up the coast to Virginia Beach, and then use normal course rules to get to NAS Norfolk.

After launching from the ship, we soon discovered that the ceiling was not as high as had been briefed, but still high enough to be VFR. I had my H2P take the controls while I cycled through various TACAN channels of stations along the coast. I started with Elizabeth City's TACAN and was working my way southward, but none of them were coming in. Meanwhile, we were still heading northwest, and the ceiling was coming down. I noticed that my junior pilot was starting to get nervous, so I told her we'd fly just long enough to get a lock on one of the TACAN stations, figure out where we were, and then make the call to either proceed to the beach or go back to the ship. I knew the aircraft's TACAN was working, because I could still get a lock on the ship.

I looked at the VFR sectional and started to second-guess myself, especially when the ceiling dropped to about 300 AGL. I told my copilot to stay under the clouds and slow to 60 knots while we troubleshot the TACAN and worked out a plan. I switched back to the ship's channel to check our distance from the ship. We had only flown about seven miles from the ship. What was going on? Why would the ship's TACAN work when so many on the coast would not? At that point, we decided to set up a shallow orbit while we discussed whether or not to return to the ship. This option, of course, was painful because it could potentially mean having to get cleared for a fly-off from the pier in Norfolk. The powers-that-be usually frowned on this ploy, especially when you had an "up" helo.

Just then, an A-6 came screaming by. "Hello!" I exclaimed to myself. "What in the hell would an A-6 be doing way out here?" I didn't think it would be that far off the coast, especially flying as low as it was. I got that gut feeling that I hate: something was very wrong. It was the feeling that many LAMPS pilots know too well when operating from ships. I dialed in Oceana's TACAN and watched as the needle locked on directly ahead of us, and the DME read 4.0. Aaaaah!

I told my copilot to do an immediate 180-degree turn back out of Oceana's class D airspace. I still had the ship on the datalink, and I somehow managed not to yell when I told the ASTAC that we were a little closer to Oceana than he had briefed. I told him we were 120 degrees at four miles from Oceana, and we had already broken their airspace. He told me he had measured the distance to Oceana well before the brief and had forgotten to update it. Aaaaah!

"OK, time to get back into the game," I thought. Once we were established outside of the class Delta, I switched to Norfolk approach's frequency to get a GCA pickup. My heart was pumping much too hard as I waited for them to tell me to call the FAA once on deck to get my flight violation for breaking airspace without clearance. Either they hadn't noticed or chose not to do anything. We got our GCA pickup and landed at NAS Norfolk 15 minutes later.

I had pushed too hard to meet the mission, especially when the weather started going sour soon after takeoff. I had pushed when the ceiling fell well below what it should have been. When my copilot told me I was pushing the situation, I finally realized that my urgency to get us home was putting us into a corner. The latitude and longitude given in the brief put us 50 miles off, compounding the problem. We nearly had a midair collision due to the limited ceiling and visibility, and could easily have received a flight violation for busting Oceana's airspace without clearance.

It is easy to say you won't fall victim to get-home-itis. I learned the hard way how quickly it can occur, especially when coupled with the pressure of trying to prove yourself as a new aircraft commander. I did many fly-offs after that one in my last tour. I always double-checked our position on the map, and I never pushed it.

Lt. Nichols wrote this article while flying with HSL-44. He is now in Air Operations at NAS Brunswick.

by Lt. Brian Smith

To Secure or That Is the

It's a beautiful day, and you have completed the painful brief, done the walk-around, started engines, and finally received your clearance from the ATC guys. Pushing up the throttles, you notice an off-speed on the starboard side and hear something "different." Well, so much for a perfect chance to get airborne.

This common series of events happened to me after we completed Eager Archer, a joint exercise with the Kuwaiti Air Force. The result, however, wasn't ordinary.

It had been a tough week for our single Hawkeye—we'd been plagued with several mechanical and electrical malfunctions that kept us grounded. Our frustration with mechanical failures was at a peak. The maintainers also were frustrated, because the problems were never the same; something new always seemed to be popping up.

We were supposed to launch and get back to USS *Carl Vinson* for an 1100 overhead. We wanted to put this frustrating detachment behind us. But after realizing we weren't going flying, we cancelled our clearance and pulled off the runway to check for switchology problems. After a few checks, we realized that the mighty Hawkeye was suffering yet another mechanical problem. We discussed our options with the crew, then the CAPC decided to taxi back to the line with the engine running and let our mechs have a look at the problem. Seeing the off-speed might help them to make a quicker fix and save them some troubleshooting.

At first, the Hawkeye taxied as advertised. We then realized that we had a significant horse-

Photo modification by Allan Amen

Not Secure, Question

power split between engines, causing the pilot to be heavy on the brakes. However, he felt that control was adequate and wanted to proceed to the line so our troubleshooters could start to look at the sick beast.

The pilot started having a hard time slowing to make the turn-off and decided that he needed to secure the engine. At the same time, from the backend, came a panicked announcement: "The starboard wheel is on fire!" We quickly secured the starboard engine, called the firefighters, secured the left engine, and egressed the aircraft. Both mainmount brakes were on fire, and a Hawkeye on fire with 12,000 pounds of JP-5 on board is not a pretty sight.

Our CICO and the firefighting crew extinguished the fires. There we were with a problem on the starboard engine and two crispy main mounts. We started out trying to save time and help the maintainers; we ended up costing us two more days and tripling the workload.

I can sum up this lesson in two words: "Secure it." Decisions may be easier when you're faced with an actual emergency. Consider the fact that troubleshooting a problem can create an emergency. When faced with an unknown, the best course of action is to listen to the little voice in your head. We could have easily taxied back to the line with one motor. We also could have cleared the runway, shut down and been towed, which would have taken only a little more time. Our frustration with our aircraft's mechanical woes throughout the week did not help the situation either. Our motives were admirable, but in hindsight, our decision process could have been better.

Lt. Smith is a CAPC with VAW-117.

Not Secure, Question

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Lt. Smith is a CAPC with VAW-117.

"The starboard wheel is on fire!"

Too Close f

by LCdr. Chris Rollins

I was working up for what would be my last boat as an LSO in the training command. We had just started night FCLPs and my students would be in the first wave. The class was small, and only two LSOs were waving. The other LSO was working his first boat, though. As I waved, I was also training the new LSO and waving him. It was his first work-up, and he needed night FCLPs himself. In order to get him bounced and back out to the shack as soon as possible, I placed him in the first wave with my students.

This plan was fine, except it left me in the shack by myself at night. I knew this was a violation of LSO NATOPS, but had no one available to act as my "assistant" (the term used in LSO NATOPS). Thus, rather than cancel the bounce period for my new LSO, I opted to wave the first period by myself.

The stage was set. I, the salty wing LSO, would go it alone, while waving a pattern full of students in the A-4 at night. What could possibly go wrong? I knew what to watch for, and I

To my horror, I finally realized why I had not seen the landing gear: his wheels were up!

Photo by Peter Mersky
Photo modification by Patricia Eaton

or Comfort

planned to keep the waveoff window out at a reasonable-to-somewhat-conservative distance. If things got too busy, writing down the passes would be my lowest priority.

The weather was good, no airplane problems cropped up, and everyone kept interval nicely. Everything clicked along perfectly during the first period.

Our wing policy was that students were allowed to depart and reenter for the night break if they chose. However, they were discouraged from doing this. The feeling was that their fuel would be better used turning downwind after takeoff and executing a direct entry. The 45-degree-AOB night break wasn't the same one they would execute in the daytime at the ship, so there was minimal training to be gained from it. Unless they were fat on fuel and needed to burn down to max trap, most students simply do the direct pattern entry.

In the middle of this fateful period, as Skyhawks continued to trickle into the pattern, I was contacted on downwind after takeoff.

"Paddles, 700".

"Go ahead, 700".

"Sir, my AOA indexers aren't working and they worked when I took off."

I asked him to check his thumb wheel, which adjusted the brightness. He did to no avail. I then asked him to turn off his external lights master. (In the A-4 this is the only way to get the AOA indexers to switch to day intensity). He did this but had no indexers on the day settings either. I rogered that he had no indexers and told him to full stop on his first pass and get another airplane.

When he showed up in the groove, he had a decent start, called the ball and indicated that he had no indexers. I rogered his ball call, repeating that he had no indexers and added "full stop." Our students were instructed to acknowledge these instructions by saying "with the gear." He did so. This phrase means two things. First, that they understood they were to full stop, and second, they had checked the gear down and were making the mandatory call to tower for a full stop.

I then began waving the pass. The first thing I noticed was that there were no approach lights on the port wing root. This did not surprise me, since they were repeaters of the AOA indexer in the cockpit. It wasn't unusual for these lights to be inoperative on our A-4s. I decided that I would have to visually check the gear, since I had no indications that the gear was down, other than the pilot's "with the gear" call, which isn't considered a positive indication.

As the plane got to the middle, the pilot began going flat. By then I could start to see the bottom of the plane, lit up by the single, red, anti-collision light. I couldn't yet see his gear, but again this didn't surprise or alarm me. That single light does not illuminate the bottom of the plane well. At about the in-close position, the plane's glideslope continued to flatten out. I still couldn't see his gear. "That damn, weak anti-smash," I thought. "It sure makes the landing gear hard to see."

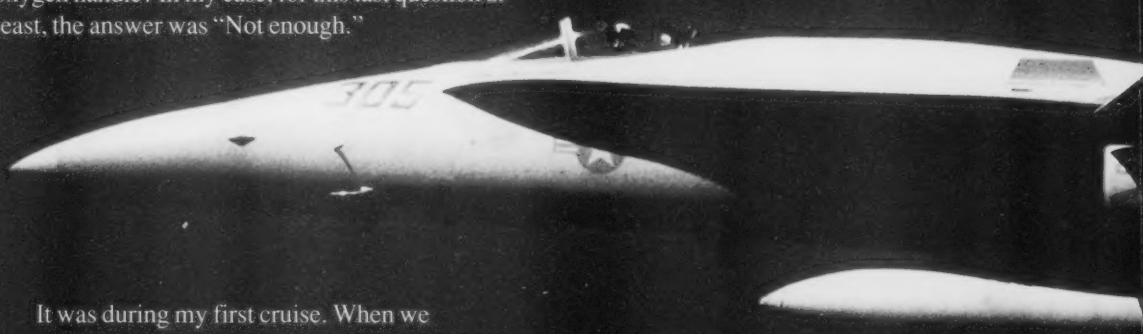
At the latter part of the in-close position, I got a good look at the bottom of the plane. To my horror, I finally realized why I had not seen the landing gear: his wheels were up! I immediately hit the pickle and called, "Wave off, wave off." I watched helplessly as the plane continued to come down as the engine spooled up. I breathed a huge sign of relief when I saw that this story would be an *Approach* article, not a statement to a mishap

Continued on page 24

23,000 Feet and No Where's That Green Wh

by Lt. Steve Barr

How many times have you been behind the JBD and gone through your settle-off-the-cat procedures? How many times have you rogered the weight board and practiced touching the ejection-seat handle? How many times have you practiced finding the emergency-oxygen handle? In my case, for this last question at least, the answer was "Not enough."



It was during my first cruise. When we weren't flying combat missions over Kosovo, we'd fly training missions over the Ionian Sea. One night, I was scheduled for a Red Air AIC hop. There was an overcast layer at 13,000 feet, with layers reaching up to 26,000 feet. I had just launched and was proceeding to my cap point, climbing through 23,000 feet, when I saw the master-caution light and both bleed-air warning lights illuminate. I looked to the left DDI (digital display) to confirm the bleeds had shut off automatically (L/R BLEED OFF CAUTION present).

After I gathered my thoughts, I proceeded through my immediate-action items in accordance with NATOPS. I got through the first step but got hung up on Step 2: "Emergency oxygen green ring - Pull." There I was, climbing through the overcast at night with a dual bleed-air warning, and I couldn't find the little green apple. I started a rapid descending turn back towards the ship and struggled, for an extremely long few seconds, to find that green loop. I finally gave up and proceeded with the other steps. After I secured the OBOGS, the oxygen plenum had drained, and I found myself gasping for oxygen through my mask. I removed my mask, told lead about my problem, and double-checked my altimeter while increasing my descent rate, trying to get down to 10,000 feet. At this point, I was more concerned about losing altitude than I was about finding the green apple.

The rep in CATCC was now talking me through the steps to ensure I had completed all the immediate-action items. When asked if I had used the emergency oxygen, I answered, "No" and didn't elaborate. He told me to put my mask back on, and after a frantic search, I was able to find the handle and start the emergency oxygen.

Thinking that all my problems were behind me, I realized that I still had 800 pounds of fuel in my centerline external tank and absolutely no way to

o Pressure—
hatchamacallit?

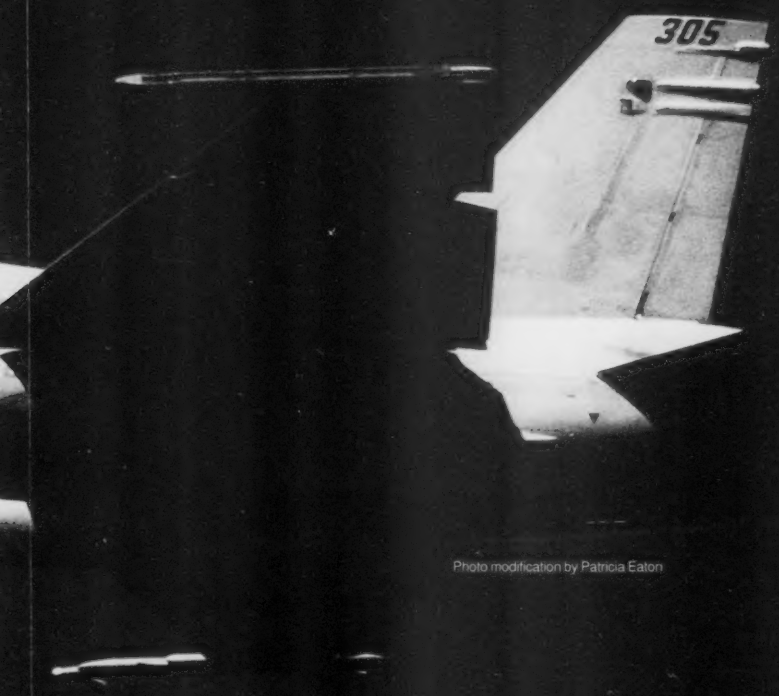


Photo modification by Patricia Eaton

He told me to put my mask back on, and after a frantic search, I was able to find the handle and start the emergency oxygen.

get it into the aircraft. The Hornet can not recover aboard the ship with more than 500 pounds in the centerline tank. Consequently, this flight ended with a divert to NAS Sigonella.

I could have avoided some of the problems associated with this emergency. I'm not sure how long it took me to descend to 10,000 feet, but the time of useful consciousness at 23,000 feet is 3 minutes and 50 seconds. That is the time between oxygen deprivation and the onset of physical or mental impairment (hypoxia). Can you say chamber ride? What some people don't know is that the first stage of hypoxia is the "indifferent" stage, when the only adverse effect is on eyesight. In the chamber, we've all experienced these symptoms and those that follow.

In the past, I never went off the catapult without reviewing procedures and touching switches and handles. Now there's one more handle that I find prior to every flight.

Lt. Barr flies with VFA-15.

BRAVO Zulu

VAW-117

Upon completion of night FCLPs at MCAS Miramar, *Wallbanger 600 launched for a return to NAS Point Mugu.* Approximately 20 minutes into the flight, the port fire-warning *light illuminated. LCdr. Gerard (the CAPC in the left seat) and Lt.* Kempf executed the NATOPS procedures and shut down the left *engine, but the fire light stayed on after the fire bottle had been* discharged.

The crew declared an emergency and confirmed that there were no secondary indications. Lt. Kempf swapped seats with Lt. Buller, *a cruise-experienced LSO and CAPC who was in the back. Lt.* Rauenhorst and Lt. Kempf pulled out their pocket checklists, *providing NATOPS backup and reviewing procedures for a field-*arrested landing at NAS Point Mugu.

During the approach, the aircraft entered IMC at 1,000 feet. LCdr. Gerard flew the precision approach. Lt. Buller provided *instrument and visual backup until he acquired the runway strobes* at 250 feet AGL. LCdr. Gerard acquired the runway environment at *approximately 225 feet and took over visually at approximately* 150 feet. His exceptional piloting abilities and the outstanding combined effort from his crew resulted in a flawless single-engine field arrestment in very poor weather.

Lt. Deborah J. Roberge
Lt. Bradley L. Arthur
AE1 (AW) Todd L. DuPree

HS-15

Red Lion 617 launched on a post-phase FCF with Lt. *Roberge as the HAC. This profile required the crew to make* sure the autorotation RPM was within limits based on environ*mental conditions and aircraft gross weight. After the aircraft* entered the autorotation, No. 2 engine Np failed to split from *the building Nr. Lt. Roberge initiated a power recovery as No. 2* Np/Nr reached 112 percent. The H-60 FCF checklist warns pilots to initiate a power recovery in the event that Nr/Np do not split, since this condition indicated failure of the load-demand spindle cable, and will cause the affected engine to flame out due to Np overspeed. *[Last year, a crew on a similar FCF missed this indication, resulting in a Class A mishap.—Ed.]*

Investigation after landing revealed that the cable had separated inside the cable housing, where it could not have been seen on preflight. The crew's sharp attention and quick reaction kept the engine from flaming out, which would have meant that the crew would have had to recover from an autorotative descent on a single engine.

BZs require an endorsement from the nominating squadron's CO and the appropriate CAG, wing commander or MAG commander. In the case of helo dets, the CO of the ship will suffice. A squadron zapper and a 5-by-7 inch photo of the entire crew should accompany the BZ nomination.

We can use digital photos, but we will need a large file: at least 5-by-7 inches at 300 dpi. If you save them in JPG format, this will reduce the file size and make it easier to e-mail. If your digital camera won't support this requirement, you'll need to shoot regular film. Don't try to include the people and the whole aircraft. Shoot a close-up of the subjects, and send a separate image of your squadron aircraft if you like. Please include a squadron telephone number so we can call with questions.

HMM-265

Capt. Thomas Moore
Capt. Grant Killmer
Sgt. Edward Owens

The crew of Dragon 14 had flown one hour and twenty minutes of a three-hour training sortie when they noticed an illuminated engine-oil-pressure light. They were doing routine single-aircraft, confined-area landings.

Capt. Moore was the aircraft commander and at the controls when the engine failed. He directed his copilot, Capt. Killmer, to conduct the immediate-action steps not requiring control inputs for a single-engine failure. At the same time, Capt. Moore made the control inputs to get the aircraft in the flight regime for single-engine operations in a CH-46E. Sgt. Owens immediately came up to the tunnel to aid in dual concurrence and to monitor the engine and flight instruments in all the emergency steps the pilots were conducting.

Once everything was under control, the aircrew analyzed the situation and decided to make an emergency landing at the largest zone in the training area. Sgt. Owens promptly returned to the crew door to aid in locating the landing zone and clearing obstacles during the approach. While transiting across the training area, the aircraft lost all power from the No. 1 engine as it automatically shut down. The crew's efforts and knowledge of aircraft systems and emergency procedures assured a safe emergency landing.

After shutting down, Capt. Moore radioed back to the squadron ready room and told the operations duty officer about the emergency landing. The helo was recovered, repaired and returned to the hangar the following day. Investigation had revealed that a bearing had failed in the No. 1 engine, causing the engine to lose power and shut down.

This crew's actions reemphasize the importance of knowing aircraft systems and NATOPS procedures, and maintaining sound aircrew coordination. Their ability to correctly analyze the developing situation and apply emergency procedures was instrumental in preventing a mishap.

HC-8

Ltjg. Rob Armbrester (H2P),
Lt. Mike Strobach (HAC),
AT2 Adam Herzer (2nd C[illegible])

During a day familiarization training flight in the United Arab Emirates, the crew of Bayraider 33 started to make a practice single-engine-landing approach. During the approach and prior to touchdown, the No. 2 generator light illuminated. At the same time, the crew chief, AD3 Roberts, reported a fire in the aft transmission compartment. He immediately put his Helicopter Air Breathing Device (HABD) in his mouth, reached for the nearest hand-held fire extinguisher and fought the expanding, three-foot fireball. After putting out the fire, he saw a re-flash that required him to use a second extinguisher to prevent further damage to the aircraft. These actions minimized damage to vital aircraft components and allowed the remaining crew to make an uneventful landing and shutdown.

Postflight analysis revealed that wiring in the No. 2 generator had worn away insulation and created a small hole in the utility hydraulic-pump suction line. Atomized hydraulic fluid at 3,000 psi had been ignited by electrical arcing.

Dumps On... and

by Lt. Colin McLean

Flying magazine runs a monthly column called "I learned a lot about flying from that"—stories describing hard-learned lessons. I could call the following yarn "I learned a lot about carrier aviation from that."

We were in the middle of carrier quals at the beginning of WestPac. As the senior lieutenant, I flew out to the ship with the squadron's last Hawkeye. We expected to enter the pattern immediately. Instead, we got overhead mother and held for three hours while the rest of the air wing worked the day, Case II pattern. We had trouble with our TACAN, and, finally, as the sun set, we took vectors to penetrate toward the initial. No need to dump fuel. When I got to the initial, the boss told the plane guard helo, "Take close aboard."

"No chance of finishing CQ today," I thought to myself. At least I'd get a good night's sleep.

On the second day at sea, once again, we got the runaround in the day pattern. After five hours of flight time, most of it overhead, we finally finished day CQ. After shutting down, a quick trip to the wardroom, and a short brief, we were back in the airplane and heading toward the marshal stack for some nighttime fun. Air ops told us to expect to hold in marshal and wait for the rest of the air wing guys to finish their night passes. No big surprise there. In fact, there were two marshal stacks—we were in the bottom of the secondary stack with another Hummer and a COD. Maintenance had filled our fuel tanks, so we made ourselves at home.

We were surprised to get vectors to come down the chute first. Our fuel state was 6,000 pounds above max trap (4,300 pounds). We began dumping fuel and commenced the approach from 6,000 feet. In our squadron, the mission commander in the aircraft announces each minute that passess while we're dumping fuel. The

Photo modification by Patricia Eaton

I was working hard to fly the needles, and I would have felt more comfortable on a dark night with those lights visible.

On... and On

airplane doesn't dump well in a descent, so as we leveled off at 1,200 feet, we were at 8,800 pounds. The mission commander told us, "Dumps on—two minutes." I rogered him, and we passed 12 miles. The overcast was 1,500 feet, and there was no moon. On top of that, we didn't have bullseye. Passing eight miles, I slowed the aircraft and transitioned to landing configuration.

"Dumps on—three minutes." Fuel state was 7,700 pounds. As we approached six miles, my copilot started looking for the drop-down lights to help me with lineup. We saw lights in the distance, but nothing recognizable.

"Dumps on—four minutes." Fuel state was 6,600 pounds. We finished the landing checklist. I slowed the airplane to on-speed. Without ACLS needles or bullseye, I was struggling to find centerline. My copilot was still looking outside for the drop-down lights, but he couldn't find them. The approach controller didn't help much, either. I asked my copilot to tell the controller that the drop-down lights weren't on. The approach controller rogered us.

Approaching four miles, I heard, "Dumps on—five minutes." Fuel state was now 5,600 pounds. At three miles, we finally picked up ACLS needles, but we still couldn't see either the drop-down lights or landing area lights. The mission commander told us he was going "cold mike" and opening the ditching hatch in the CIC. It is SOP in the community to open this prior to any carrier landing. Otherwise, in the event we have to ditch, the hatch may become stuck in an airframe that has been bent from impact. With the wind whistling into the aircraft, the mission commander's ICS had to be "cold mike" for the rest of the crew to talk. I rogered him and asked the copilot to once again notify the approach controller that the landing area and drop-down lights weren't lit. I was working hard to fly the needles, and I would have felt more comfortable on a dark night with those lights visible.

Finally, at a mile and a half, the lights came on. I was above glideslope and right of centerline, but at least I could see where I was supposed to land. Then, my copilot said, "The dumps are still on." I cursed to myself and turned them off. Our fuel state was 3,700 pounds. We called the ball. I can't even remember my pass.

Luckily, we were above hold-down, albeit by only 200 pounds. We headed straight to the cat, and I got my second pass of the night before we were sidelined for gas.

We had been distracted, and could have continued dumping fuel until we were below bingo. In debriefing the flight, we realized that a lot of things added to our distraction. We hadn't flown at night at the ship in a month and a half, which compounded anything we confronted. Everyone in the aircraft is responsible for aircrew coordination, but the aircraft commander directs the focus of the entire crew. I was too worried about the drop-down lights and centerline to remember the fuel dump. I remember the Eastern Airlines DC-10 crew that we study in ACT courses; they flew into the Everglades because they were trying to fix a faulty light. It's amazing how easily aircrew coordination degrades, and I'm glad we didn't end up in extremis.

Lt. McLean is the pilot NATOPS officer with VAW-113.

Stuck Stick Strikes Again

by Lt. Patrick Greene

It was a beautiful day for flying around NAS Oceana. I launched as the lead of a two-plane Close Air Support (CAS) strike. We were supporting squadronmates who were finishing up Tactical Air Control Party (TACP) class in preparation for their Forward Air Controller (A) syllabus.

We proceeded south to Camp Lejeune and began the CAS with medium-altitude, roll-in deliveries. After a few passes, we transitioned to low-altitude pop attacks. Completing our runs, we left 500 feet and began to climb out for the transit back to Oceana. Climbing through 3,000 feet, I tried to bring the jet right to head toward home. The stick appeared to be stuck in the neutral position, and the jet was unwilling to turn. Another attempt to turn the jet with a little more stick pressure yielded the same result. We were wings level and climbing away from the ground. I put both hands on the stick and tried to arm wrestle with it. The stick definitely did not want to go right, even when I used both arms, so I decided to try to go to the left.

At first, the result was the same, but as I added more and more force, the stick budged a little, and the aircraft began to roll to the left. The binding force to the right did not subside, and my attempts to counter the roll to the left were futile. The aircraft's stick was now stuck in a commanded left-hand roll. As we continued to roll, my subconscious danger meter began to rise rapidly. We were at 4,000 feet, continuing the slow, left-hand roll, and approaching 60 degrees of bank.

Like most aviators, I've received some outstanding aircrew-coordination training, which stressed the importance of inter-cockpit communication. I applied my hours of training and let my RIO know about our problem by uttering a choice

I applied my hours of training and let my RIO know about our problem by uttering a choice four-letter word.

Photo modification by Allan Amen

four-letter word. He asked what was wrong. My hands were busy choking the black out of the stick grip, and I didn't want to take them off to key the ICS. I knew if we continued to roll until we were inverted, our situation would become dire. A slow roll meant the nose would have plenty of time to track through the horizon, and we would lose precious altitude. I didn't like our chances of surviving an inverted ejection at low altitudes.

I threw in a boot full of right rudder to stop the nose from falling below the horizon. This ploy seemed to stop the left roll but didn't bring the aircraft back to the right. Finally, with a last two-handed struggle, the stick popped free, and the aircraft returned to normal flight. We flew an uneventful straight-in back to Oceana. A thorough post-flight inspection by the mechs revealed that a small patch of metal had freed itself from the inside of the port horizontal stabilizer and was touching the fuselage. A check of the rest of the airplane revealed nothing. The jet was put back into flying status 24 hours later; I was taking it on a bombing hop.

We briefed some low-altitude pops for the fun factor and proceeded down to the range. During preflight checks, I looked for abnormalities in the controls, and after we launched, I stirred the pot occasionally just to be sure. As we began our turn-in for the attack run, the jet began to ratchet, and the stick began to offer resistance. I leveled the wings and began climbing away from the ground. Once this airplane began to demonstrate the slightest hint of controllability problems, I knew I was done for the day and headed home. During post-flight checks, we spread the wings and did a wipeout. The stick would only deflect to one-quarter throw to the left, but after a couple of cycles, the binding-force broke free and the stick returned to normal.

Another thorough post-flight inspection revealed the source of the binding flight controls. A few years ago, F-14 A's and B's received an improved radar display for the back seat known as a Programmable Tactical Information Display (PTID), primarily to display LANTIRN footage. Until sufficient numbers of PTIDs became available, jets had to be able to use both the newer display and the older Tactical Information Display (TID). When the TID was in use, the PTID cannon plug was wrapped in plastic and secured beneath the RIO's foot pedal. In our case, the cannon plug had vibrated until it was free. Scratched and abraded, it then lodged in the control rods that run through the right side of the airplane. Talking to aircrew from other squadrons, I found that my case was at least the third incident of binding flight controls attributed to this cannon plug.

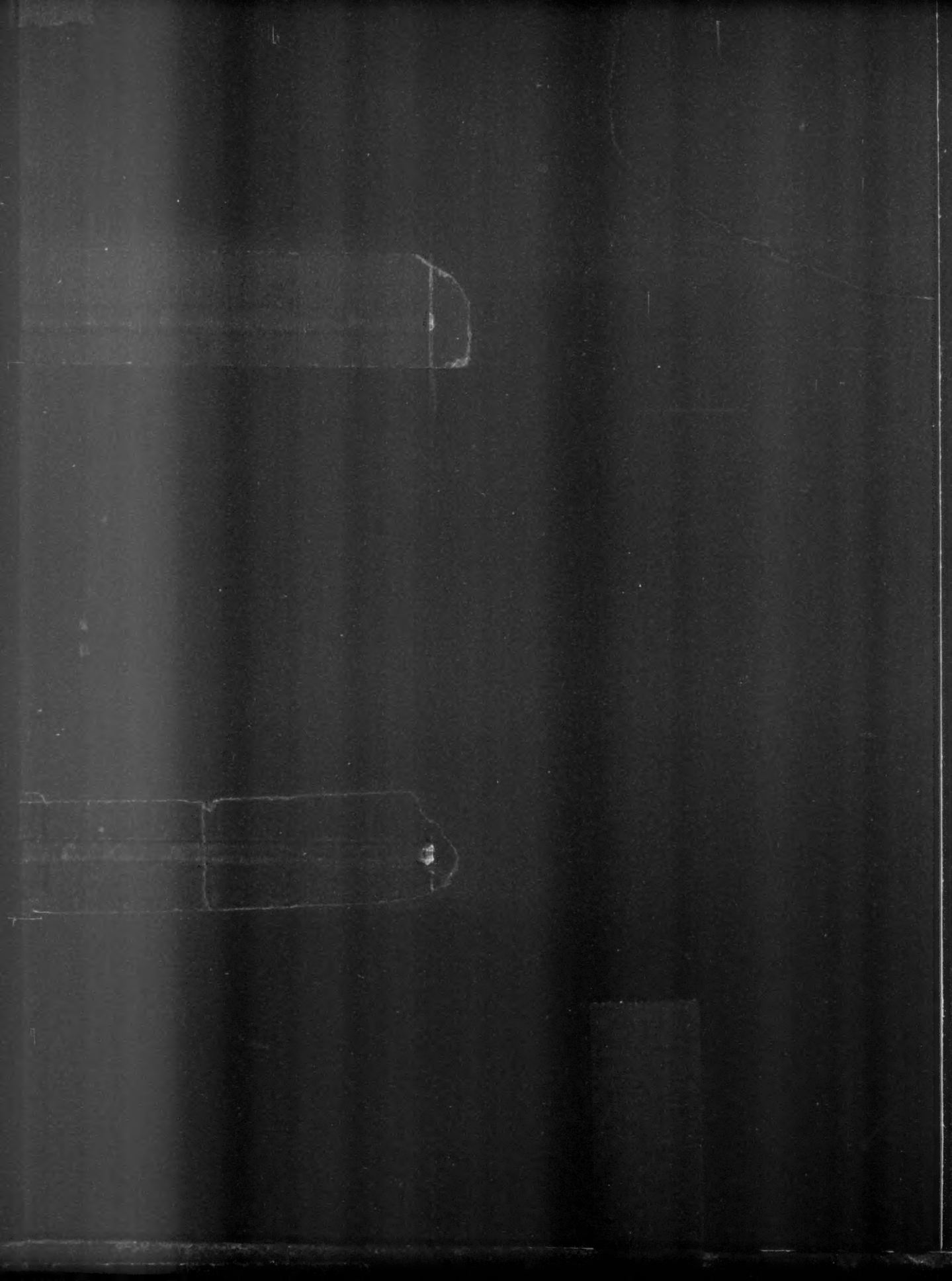
Had this situation reared its ugly head a minute earlier in my flight, when we were at 500 feet or pointed at the ground, we would have had one option: a very low-altitude, high-airspeed ejection. I scrutinized my actions and determined that there were things I could have done better. First, remember when the initial indication presented itself? It was at 3,000 feet, when we were wings level and climbing away from the ground. Instead of experimenting with a marginally controllable aircraft at that altitude, I should have been patient and allowed time to gain more altitude. We always brief controllability checks to be done above 10,000 feet, and we were in a position to make this happen.

Even though the roll to the left was commanded, once we couldn't counter it, we should have treated this problem in accordance with uncommanded-roll boldface. (For you Tomcat guys, using the rudder earlier and possibly some asymmetric thrust might have stopped the roll). A more experienced aircrew would also tell you that since we could roll left, if the situation dictated, we could have rolled 360 degrees to get the aircraft upright. My only thought at the time was to fight the roll, but that may not be the only or best option.

My ACT or lack thereof was also an issue. My RIO had an idea that something was wrong with the airplane but was unaware of the exact nature of the problem. It wasn't until after we recovered that I told him about our problem. The next word he might have heard was "Eject!", and he would not have even known why.

Lastly, although I felt I was the right person to fly the jet the next day in order to spot any problems with the controls, bombing runs weren't the ideal regime to test them. A better choice would have been a high-altitude confidence hop, where I could put it through its paces with plenty of altitude, in case I had to recover.

Lt. Greene flies with VF-14.



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Lt. Greene flies with VF-14.

When It Rains, It Pours: Multiple Malfunctions on a Pilot Trainer

by LCdr. Steve Deal

During my training to be an Instructor Pilot (IP) in the P-3C, I remember feeling utter disbelief at the wild, complex flurry of malfunctions the instructors threw at me.

These flights are legendary for FRS IPs. Prospective instructors from fleet squadrons have heard the stories and study for months, preparing for graduate-level discussions of systems and procedures. Typically, it was a 4 v 1: four instructors (two IPs and two Instructor Flight Engineers, or IFEs) against the student, who was trying to fly the plane, finish checklists, and handle simulated emergencies.

Numerous sets of on-line students and two years later, I knew the training was for real and had more purposes than I could comprehend at the time. This training saved me in countless situations.

Fast forward to the year 2000, and here I am, a fairly new department head and squadron IP in a VP squadron at NAS Whidbey Island, Wash.

One day, I began what I thought was just another pilot-training event with two students, one a PPC Fly 4, and the other a PPC Fly 2. The preflight went well. I took the pilots-around the airplane, asking detailed questions about static ports, drains and cooling ducts, peppering them with scenarios where inadequate preflights had led to in-flight malfunctions, unexpected predicaments, and emergency landings.

Engine-start checklists proceeded normally. In my scenario, I had planned a few "gray area" malfunctions on the deck, designed to make the pilot think about whether to continue the flight and the implications of that decision. One of these problems was an oil-cooler flap stuck open, which would be followed later in the flight by the simulated inability to keep oil temperature in the proper range.

As we took the off-duty, we had to taxi over the arresting gear. This is normal, and we did so at a reasonable taxi speed. I began concentrating on finishing checklists and starting the outboard engines, beginning with No. 4. As the engine came on line, we had an actual fuel-pressure-low light, meaning that either we had a fuel leak; or a defective, engine-driven, centrifugal, fuel-boost pump; or a bad pressure switch for the light (as is usually the case). The pilot stopped the aircraft and set the parking brake. I smiled again. Another real-world, typical malfunction for this team to investigate. I looked back at the IFE. I could see him reviewing the procedures, scanning instruments and ready to back up the FE in the seat for switch positioning.

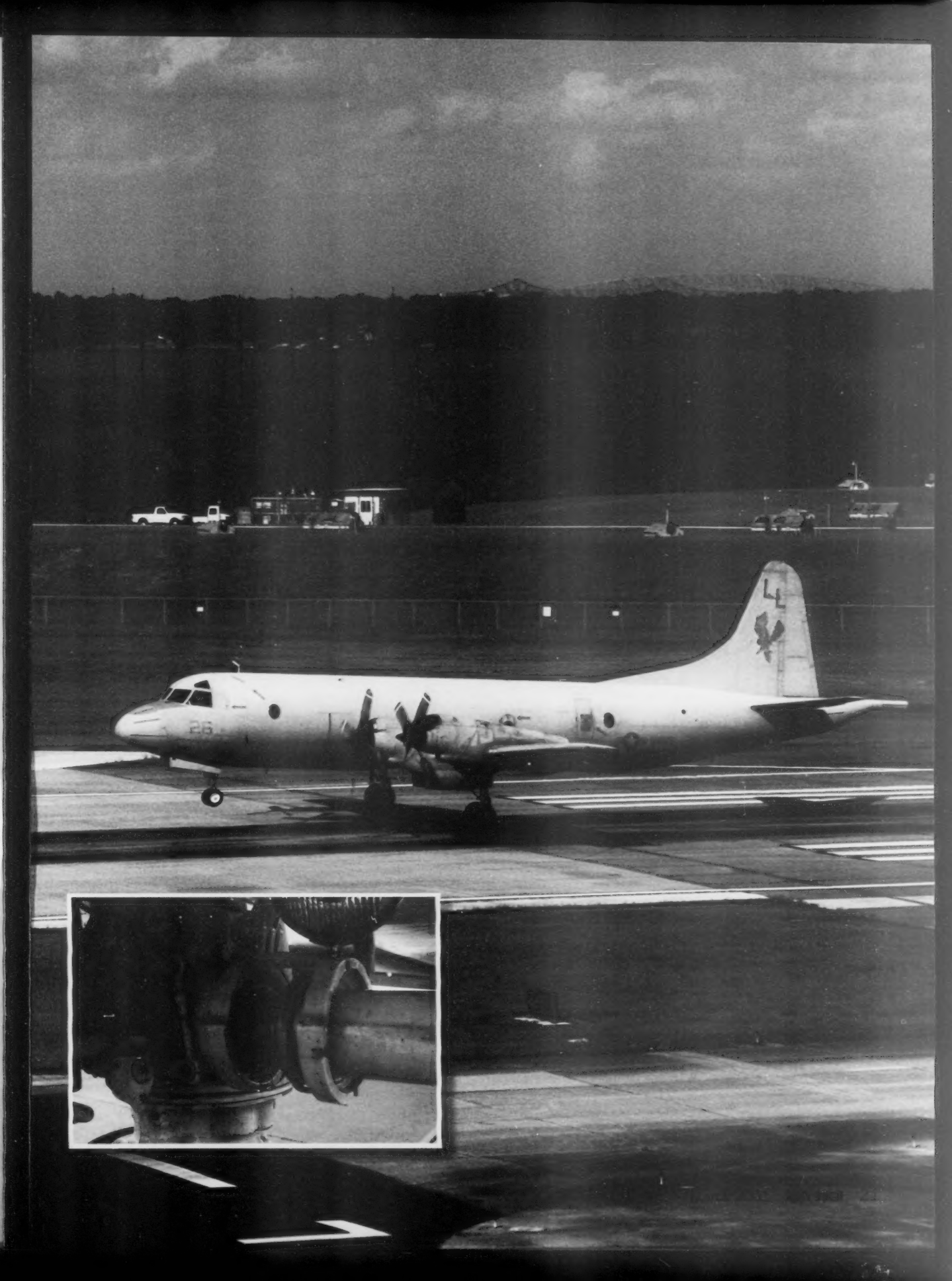
As we discussed and troubleshot the malfunction, the pilot in the left seat appeared distracted, not as involved in the crew coordination as I would have liked. I took the duties of the pilot at the controls and verbalized the procedures, checked for leaks and eventually extinguished the light by cycling an electrically driven boost pump in the fuel tank, as per NATOPS. I looked at my "student" for a reaction.

"I can't move the nosewheel to the right anymore. It seems jammed," the pilot responded. "It's been this way since we ran over the arresting gear. It will move left, but not right."

I looked outside and saw the aircraft cocked a little left of centerline. I scolded myself for not noticing this while we were troubleshooting the actual malfunction. I felt concerned that the pilot didn't announce the problem earlier. Only 10 seconds passed from the time we taxied over the arresting gear to when we stopped for the fuel-pressure-low light, and the pilot was just getting ready to announce his malfunction when I announced my own.

We discussed the possibility of a jammed nosewheel-steering chain. It runs from a small steering column to the left of the pilot's seat down to pulleys, which operate actuating cylinders, powered by hydraulic system No. 1.

Continued on page 25



Birds *Always* Turn Away, Right?

by LCdr. William Blacklidge

I scheduled myself for a two-plane low-level over central Florida to get out of the office and out from under the ever-present spotlight that skippers tend to blaze upon poor, defenseless Ops O's like myself. As an Air Combat Training Curriculum (ACTC) Level 5 instructor, I was giving my pilot a check flight for his Level 3 qual. My wingman was an experienced lieutenant commander, also a Level 5 Instructor, who was getting an "X" for his NFO. The weather was excellent. It looked like it was going to be a good day to fly around in the trusty War Hoover.

My pilot did his homework, and the brief and preflight procedures went well. He thoroughly described the route, including entry-point procedures and known restrictions (a hard altitude of 700 AGL for the first leg). As a routine part of the brief, we also covered the topic of avoiding bird. Too bad the birds didn't get the same brief.

En route IFR procedures went as planned, and we cancelled with ATC and descended to the low-level entry point as a section. Acquiring the entry point a little late, my pilot decided he wanted to circle to get a better lead-in to the point as a section. This was fateful decision #1.

We came back around and reacquired the entry point. We lined up, pushed our wingman out in a spread, verified airspeed and altitude, and hit the first point. As we crossed the first point, I once again verified 700 feet AGL. I described expected landmarks on the first leg from the chart and my previous experiences on this route.

After we hit the entry point, I saw a few birds and filed that info into the "same old stuff" brain slot. That was fateful decision #2. After all of 20 seconds on the route, I noticed one lone speck in the distance, just floating around in the breeze. I casually remarked, "Bird centerline, on the horizon." My pilot didn't respond. I figured we had plenty of time. The bird had to be pretty far off, and it had to be big if I could see it already. The bird appeared to move slightly left, so it looked like we'd pass left-to-left. But as we closed the growing speck, two things suddenly struck me: it was a big bird, and it seemed to be moving back toward us. "Bird, high left," I announced.

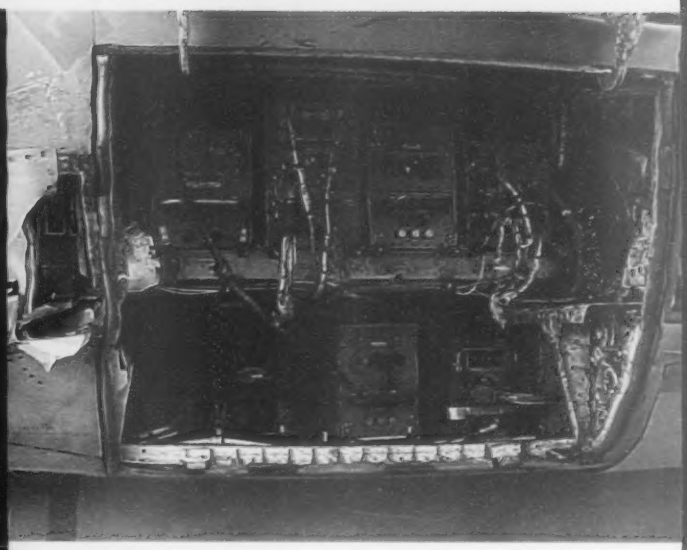
Suddenly, the bird zoomed, tucked and dove right at us with a vector straight for the cockpit. "Bird! Bird! Bird!" When the captain of the Titanic saw that big iceberg, he knew there was no way to avoid it, but he tried anyway. So did we. My pilot acquired the kamikaze on final and immediately pitched the nose up, just as the left side of the canopy offered an extreme close-up of a large Florida turkey buzzard, moving left to right and descending.

Boom! We felt the impact, and just as quickly, we realized the cockpit was intact. We climbed and checked the instruments, feeling a slight vibration and hearing a loud rumbling.

As we were climbing out, I realized my right hand was so firmly wrapped around the lower ejection handle that I had to peel it off with my other hand.

I radioed my wingman and asked him to check us out. He told us we had a "large hole" in the lower left section of the radome, with debris hanging out. He had seen something hit us but did not know what it was. We discussed the situation, location (south of Orlando) and options. Deciding to turn east, we contacted Orlando Approach and asked for clearance for an over-water profile back to Jacksonville. The aircraft was controllable, it had two good engines, and homeplate was our best option. However, the radome is attached to the Viking by four latches, and given the structural damage, we wanted to minimize the chances that it would fall off over land. Orlando Approach cleared us and relayed to Jacksonville Approach that we'd be declaring an emergency once we were ready to make an approach to NAS Jacksonville from the warning area.

Heading north over water, our wingman provided escort and support while we discussed this not-in-NATOPS situation. The vibrations were slight, and the



Suddenly, the bird zoomed, tucked and dove right at us with a vector straight for the cockpit.

intensity of the rumbling seemed to be associated with our airspeed. Since the visible damage was very close to the nose wheelwell, our wingman suggested we put down our gear once we were comfortably close to Jacksonville. We dirtied up at altitude, got a good "three down and locked" indication, checked controllability, and got a thorough, visual inspection from our wingman.

We declared an emergency and started a visual approach, with a flight path that minimized the amount of time we spent flying over populated areas. We were worried that a change of airflow in the dirty configuration might cause the radome to fall off, or make some of the debris fall out of the hole and FOD an engine. We requested an arrested landing on Runway 27 with an LSO on station. My pilot made a perfect approach and arrestment to the short-field gear. As soon as the aircraft stopped, the crash crews signaled for us to immediately shut down both engines—apparently, some debris fell out of the radome hole as we decelerated in the wire. We were then ungloriously towed back to the hangar, where a large crowd just stared and pointed at the nose of our aircraft.

I soon saw the reason for the quick shutdown and all the gawking. The whole lower left quadrant of the radome was gone, and a lot of structural components were bent or missing. The radar blanket was shredded, and wires were dangling. The whole area and two avionics bays were coated with large chunks of buzzard, with the largest remnants embedded in the FLIR components. If the bird did that to metal, imagine what it would have done to the cockpit and to us.

As we debriefed this good-deal flight, I thought about what we could have changed to prevent the birdstrike. We followed procedures and had intended to fly the route in a conservative manner. Should I have grabbed the controls in close? Should I have directed a course change to steer clear of the bird? The fact is that I was comfortable with the bird "on the horizon" and showing an opening profile. I didn't insist that my pilot confirm that he'd seen the bird. Once it was in close and became a threat, we didn't have time to react quickly enough. I've flown so many low-levels in the Southeast that I've gotten used to birds. I wasn't prepared for a bird that was actually going to steer at me and not away from me. I think I prefer the Skipper's ops-officer spotlight against any more good deals like that.

LCdr. Blacklidge is the safety officer at CSCWL. At the time of the incident, he flew with VS-24.

COMFORT *Continued from page 11*

board. As the plane bottomed out, the drop tanks cleared the runway by less than 20 feet.

In the debrief, the student told me that, as I suspected, he had raised the gear out of habit prior to turning downwind. When I asked him why he ignored the wheels-warning light flashing at him, I was further alarmed when he told me he had no wheels-warning light because he had raised the flaps, too! I was terrified to think how far back on the power he had to be when I waved him off, and how fortunate I was that he had not landed on or at least scraped the drop tanks.

As a pilot, he had fallen into a trap: getting distracted by the lack of AOA indexers and not completing his landing checklist. In the A-4, the indexers indicate that the weight-on-wheels switch is working. If that switch is broken, reducing power below 80 percent with the spoilers armed would cause them to deploy in flight. Lots of Skyhawk pilots wait to see indexers prior to arming the spoilers for that reason. Then they execute the landing checklist. The hero of this story immediately started troubleshooting what he thought was an indexer problem and never went through his landing checklist.

I breathed a huge sign of relief when I saw that this story would be an *Approach* article, not a statement to a mishap board.

Anytime your routine is broken, the prudent thing to do is to back up to the beginning of the checklist and start over. This is especially true with the landing and takeoff checklists.

As an LSO, I made some notable mistakes. The first was violating LSO NATOPS. Another set of eyes would have helped, and another person analyzing the problem would have definitely increased the possibility of detecting the student's mistake. Second, I had no indication of gear down and locked. At night, the procedure for this is clear-cut: an in-close waveoff and a visual check that the gear is down. I have no excuse for not doing this. There was no wheels watch on station (mandatory in the training command when student's solos are in the pattern) and the runway approach lights were off. Both absences were at my request. The wheels watch is useless without the approach lights to illuminate the bottom of the plane. The LSOs always had the approach lights turned off to provide better training; they took responsibility for wheels watch. This situation made it impossible to visually see the landing gear from a safe distance.

Finally, there was no pressure to land that airplane on the first pass. A waveoff and visual check was clearly what should have been done. That didn't occur to me because we hadn't discussed a gear problem, and the procedure is usually thought of in relation to CV ops.

Sometimes the most obvious thing eludes us because we can't believe we made a mistake. When the pilot told me that his indexers didn't work but had worked on takeoff, the first thing that came to my mind was that he had just described the indications of having raised the gear on takeoff. Then I thought, "No way, no one would do that and not remember it." Just like the pilot, I had disregarded the obvious, and then made matters worse by not following procedures. In the end, the only thing I did right was waving him off, although it ended up being too close for comfort.

LCdr. Rollins flies with VFA-27. At the time of this incident, he was the CTW-1 LSO.

TRAINER *Continued from page 20*

My first reaction was to get the No. 1 engine started and use asymmetric power to get the nosewheel to center, a systems point I had remembered from the FRS. My overriding concern was that the nosewheel was apparently working fine to the left, but not to the right.

Before we could say another word or begin to set up for engine starts, the station BASH truck whizzed by the nose of the aircraft, stopping well to the left of the flight station. Just after that registered in my mind, ground called us. "The BASH truck in front of you says you have an oil leak in your nosewheel area," the controller reported.

"Hydraulic system number one!" the pilot in the left seat exclaimed, and we all looked down at the gauge as the needle sped down to the one-gallon-left marker before we secured both systems' hydraulic pumps. I kicked myself again. Why hadn't I checked that gauge right away? Did we cause any other damage by having the pumps on so long? What was going on out there? We secured the engines, lowered the ladder, and walked out to meet the fire truck. The firefighters and some of our crew were already cleaning up the fluid spill. A large, red, oil slick surrounded the nosewheel area where we were parked. It was contained quickly, and I couldn't help but look back to the arresting gear to look for more red fluid. There was none. It was all concentrated just under our nose gear.

I walked back to the arresting gear, about 50 yards, and noticed drops of VVL-800 (lubricating fluid) all the way back from the gear to our nosewheel. The left nosewheel actuating cylinder had cracked through, leaking lubricant until the gearing inside created enough friction to move the casing apart. This action severed a hydraulic line and caused our loss of hydraulic fluid, which, at 3,000 psi, must have happened in seconds.

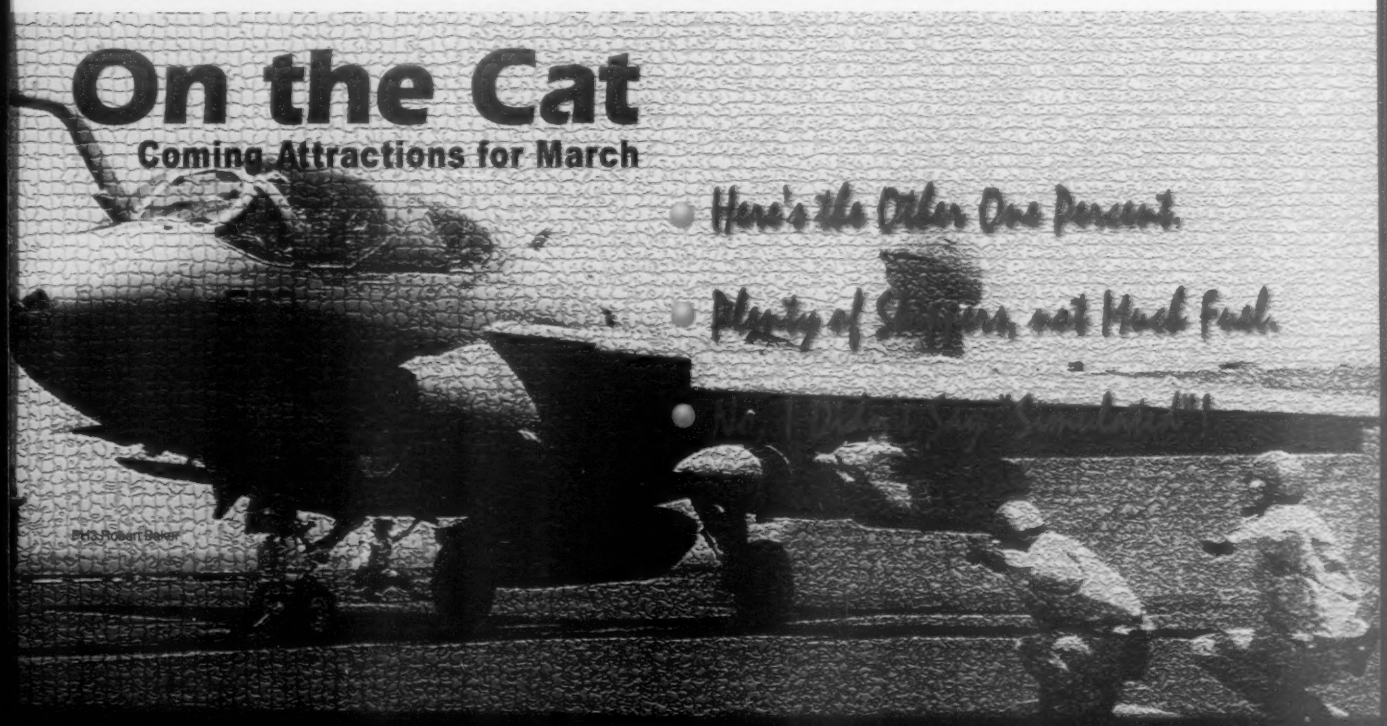
After we shut down engines on the off-duty, my IFE remarked, "Man, is this the IUT or what?" and I had to laugh and agree. I can never work too hard on my own scan while evaluating the student.

Many systems on the P-3C require constant review, and as current as I felt at the time, I could still have shaved a couple seconds off our reaction to the malfunction.

Another point is the considerable age of these systems. The P-3C is a legacy aircraft with many modifications, which complicate maintenance as well as aircrew troubleshooting procedures. I have never before seen aluminum shear because of vibration and stress under normal operating conditions, and this was a wake-up call for me.

Seasoned pilots in the left seat, no matter how qualified, need and deserve the best copilot backup possible. Good defensive positioning by the IP and a constant scan are not demeaning to the student—they are skills necessary for operating a complex aircraft.

LCdr. Deal flies with VP-1

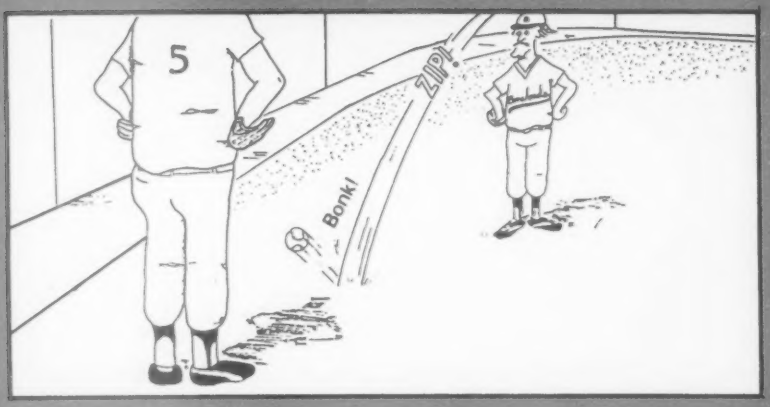


Classic

BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

by Lt. Ward Carroll



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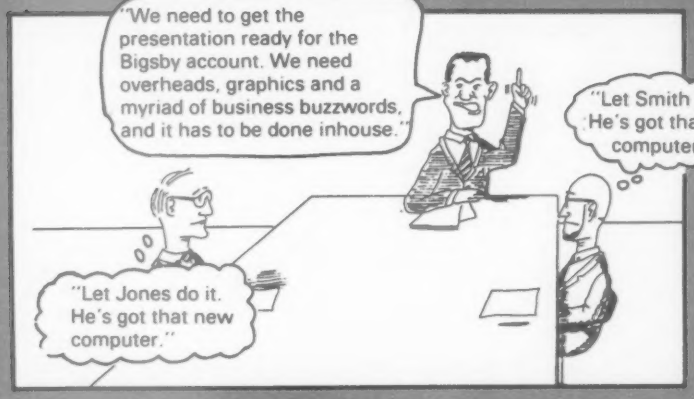
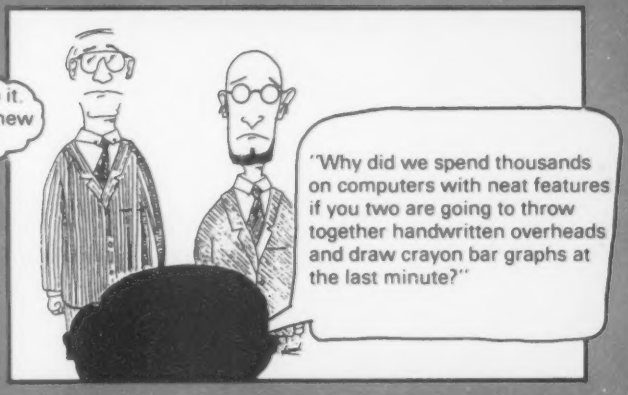
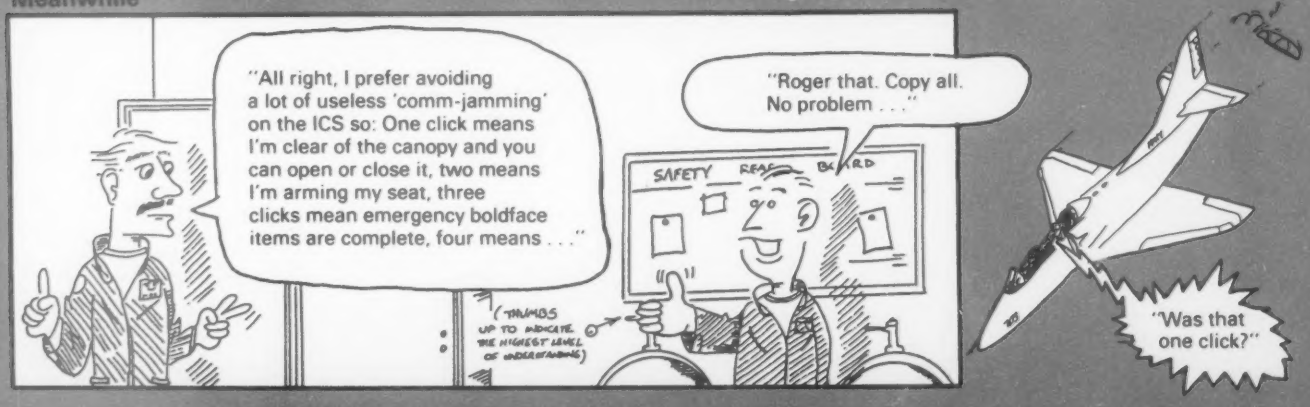

"We need to get the presentation ready for the Bigsby account. We need overheads, graphics and a myriad of business buzzwords, and it has to be done inhouse."
"Let Smith do it. He's got that new computer."
"Let Jones do it. He's got that new computer."


"Why did we spend thousands on computers with neat features if you two are going to throw together handwritten overheads and draw crayon bar graphs at the last minute?"

Meanwhile


"All right, I prefer avoiding a lot of useless 'comm-jamming' on the ICS so: One click means I'm clear of the canopy and you can open or close it, two means I'm arming my seat, three clicks mean emergency boldface items are complete, four means . . ."
"Roger that. Copy all. No problem . . ."
SAFETY
(THUMBS UP TO INDICATE THE HIGHEST LEVEL OF UNDERSTANDING)
"Was that one click?"

Miscommunication can be embarrassing in any profession. In aviation it can be more so.